Tennessee Valley Authority, Post Office Box 2000, Soddy Daisy, Tennessee 37384-2000

Richard T Purcell
Site Vice President
Sequoyah Nuclear Plant

February 4, 2003

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

10 CFR 50.73

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN) UNIT 2 - DOCKET NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - LICENSEE EVENT REPORT (LER) 50-328/2002-004-00

The enclosed report provides details concerning an automatic reactor trip resulting from a neutral over-current condition on the Number 3 reactor coolant pump. This event is being reported, in accordance with 10 CFR 50.73(a)(2)(iv), as an event that resulted in an automatic actuation of the reactor protection system.

This letter is being sent in accordance with NRC RIS 2001-05.

Sincerely,

R T Purcell

Richard T. Purcell

Enclosure

See page 2 for cc list.

JE22

cc (Enclosure):
Mr. Raj K. Anand, Senior Project Manager
U.S. Nuclear Regulatory Commission
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NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request 50 hours Reported lessons learned are incorporated into the licensing process and fed back to industry Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U S Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503 If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to the information collection

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Sequoyah Nuclear Plant (SQN) UNIT 2	05000328	1 OF 4

4. TITLE
Reactor Trip Resulting From The Loss of A Reactor Coolant Pump

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
12	26	2002	2002	– 004 –	00	2	4	2003	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE	1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
10. POWER LEVEL	100	20 2201(d)	20 2203(a)(4)	50 73(a)(2)(iii)	50 73(a)(2)(x)
		[redacted]	[redacted]	[redacted]	73 71(a)(4)
		20 2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50 73(a)(2)(v)(A)	73 71(a)(5)
		20 2203(a)(2)(ii)	50 36(c)(2)	50 73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
		[redacted]	[redacted]	[redacted]	
		[redacted]	[redacted]	[redacted]	
		[redacted]	[redacted]	[redacted]	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
James Proffitt	(423) 843-6651

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
X	AB	MO	W120	Y					

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

16. ABSTRACT (Limit to 1400 spaces, i e , approximately 15 single-spaced typewritten lines)

On December 26, 2002, at 1620 Eastern Standard Time, the No. 3 reactor coolant pump (RCP) tripped because a neutral over-current condition on the No. 3 RCP motor. The loss of the No. 3 RCP resulted in a reactor coolant system low flow and subsequent automatic reactor trip. A feedwater isolation and auxiliary feedwater start occurred, as designed. Control room operators responded to the event in accordance with plant procedures. They promptly diagnosed the plant condition, took the actions necessary to stabilize the unit, and maintained the unit in hot standby, Mode 3. The cause of the event was a neutral over-current condition on the No. 3 RCP motor. The motor was replaced and the unit was returned to service.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION	
Sequoyah Nuclear Plant (SQN) Unit 2	05000328	2002 –	004 –	00	2 OF 4

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. PLANT CONDITION(S)

Unit 2 was in power operation at approximately 100 percent reactor power.

II. DESCRIPTION OF EVENT

A. Event:

On December 26, 2002, at 1620 Eastern Standard Time (EST), the No. 3 reactor coolant pump (RCP) (EIIS Code AB) tripped because of a neutral over-current condition on the No. 3 RCP motor. The loss of the No. 3 RCP resulted in a reactor coolant system (RCS) low flow and subsequent automatic reactor trip. A feedwater (EIIS Code SJ) isolation and auxiliary feedwater (EIIS BA) start occurred, as designed. Control room operators responded to the event in accordance with plant procedures. They promptly diagnosed the plant condition, took the actions necessary to stabilize the unit, and maintained the unit in hot standby, Mode 3.

B. Inoperable Structures, Components, or Systems that Contributed to the Event:

None.

C. Dates and Approximate Times of Major Occurrences:

December 26, 2002, at 1620 EST	The No. 3 reactor coolant pump tripped on a neutral over-current condition on the motor causing an RCS low flow reactor trip

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

The reactor coolant pump trip and subsequent reactor and turbine trips annunciated on the main control room panels.

F. Operator Actions:

Control room operators responded to the event in accordance with plant procedures. They promptly diagnosed the plant condition, took the actions necessary to stabilize the unit, and maintained the unit in hot standby, Mode 3. The unit was subsequently cooled to Mode 5 for replacement of the motor.

G. Safety System Responses:

The plant responded to the reactor and turbine trips, as designed.

III. CAUSE OF THE EVENT

A. Immediate Cause:

The immediate cause of the event was the actuation of the No. 3 RCP associated 6.9-kV circuit breaker's ground relay.

B. Root Cause:

The root cause of the event was a winding insulation failure in the No. 3 RCP motor.

C. Contributing Factor:

None.

IV. ANALYSIS OF THE EVENT

The plant safety systems responses during and after the unit trip were bounded by the responses described in the Final Safety Analysis Report (FSAR). The other three RCPs continued to operate providing adequate forced flow to shutdown the plant. The FSAR analysis assumes a loss of all forced flow. The analysis demonstrates that adequate core cooling is available with operation of the auxiliary feedwater system and natural circulation in the RCS. Therefore, adequate forced coolant flow assumed in the FSAR analysis and technical specifications requirements were met and no anomalies were noted.

V. ASSESSMENT OF SAFETY CONSEQUENCES

Based on the above Analysis of The Event, this event did not adversely affect the health and safety of plant personnel or the general public

VI. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

Troubleshooting of the No. 3 RCP motor was performed and it was determined that a ground existed on the motor winding.

B. Corrective Actions to Prevent Recurrence:

The motor was replaced and the unit was returned to service.

VII. ADDITIONAL INFORMATION

A. Failed Components:

A Westinghouse 6,000 horsepower RCP induction motor, Model CS-VSS failed. Troubleshooting of the motor winding identified that a ground was present on the motor, causing the failure. The motor is being disassembled and inspected to determine the cause of the ground.

B. Previous LERs on Similar Events:

A review of previous reportable events for the past three years did not identify any similar events.

C. Additional Information:

None

D. Safety System Functional Failure:

This event did not result in a safety system functional failure in accordance with 10 CFR 50.73(a)(2)(v).

VIII. COMMITMENTS

None.